

THE GENERAL BOARD
United States Forces, European Theater

~~WAR-10~~
~~D. V. 1. 1. 1.~~
~~1. 1. 1. 1.~~
~~1. 1. 1. 1.~~
4A
25
4586
7096

REQUIREMENT FOR ORDNANCE RECOVERY COMPANY

MISSION: Prepare Report and Recommendations on the Requirement
for Ordnance Recovery Company.

The General Board was established by General Orders 128, Headquarters European Theater of Operations, US Army, dated 17 June 1945, as amended by General Orders 182, dated 7 August 1945 and General Orders 312 dated 20 November 1945, Headquarters United States Forces, European Theater, to prepare a factual analysis of the strategy, tactics, and administration employed by the United States forces in the European Theater.

REQUIREMENT FOR ORDNANCE RECOVERY COMPANY

TABLE OF CONTENTS

<u>SUBJECT</u>	<u>PAGE</u>
Chapter 1: Background of the Requirement.	1
Section 1 - History	1
Experience in Other Theaters	1
The Ordnance Evacuation Company.	1
Section 2 - Action Taken by First US Army	1
Organization of Ordnance Evacuation Companies (Collecting)	1
Equipment.	1
Trucks, 2½ ton	1
Wreckers	2
Defense.	2
Personnel.	2
Chapter 2: Technique of Provisional Ordnance Evacuation Companies (Collecting)	2
Section 1 - Employment.	2
Assignment	2
Mission.	2
Mis-use.	2
Section 2 - Operations.	3
Reconnaissance	3
Communications	3
Performance.	3
Section 3 - Equipment	3
Tank Transporters.	3
Semi-Trailers.	3
Section 4 - Personnel	4
Casualties	4
Dispersion	4
Section 5 - Training.	4
Subjects	4
Deficiencies	4
On-The-Job-Training.	4
Chapter 3: Requirement for An Ordnance Recovery Company	4
Section 1 - Evaluation.	4
Magnitude of the Task.	4
Importance of the Task	4
The Ordnance Recovery Company.	4
Chapter 4: Conclusions and Recommendations.	5
Section 1 - Conclusions	5
A Requirement Does Exist for an Ordnance Recovery Company.	5
Assignment	5
Mission.	5
Organization	5
Equipment.	5
Training	5
The Post-War Army.	5
Section 2 - Recommendations	6

TABLE OF CONTENTS

(Continued)

Appendices:

1. Remarks of Major Charles Askins, Battlefield Recovery Officer, Ordnance Section, Headquarters First US Army, from 11 December 1944 to 24 March 1945.
2. Remarks of Lt. Col. R. G. Atkinson, Ordnance Supply Officer, Ordnance Section, Headquarters First US Army, throughout the European Campaign.
3. Remarks of Colonel W. B. Moats, Ordnance Department, Commanding Officer, 51st Ordnance Group, during the European Campaign.
4. Remarks of Colonel N. M. Lynde, Deputy Ordnance Officer, Headquarters First US Army, 15 December 1943 to 5 February 1945.
5. Remarks of Captain J. Davis, 310th Ordnance Battalion, formerly Commanding Officer, 484th Ordnance Evacuation Company (Collecting), First US Army, throughout the European Campaign.
6. Remarks of Lt. Col. J. V. Kling, Ordnance Supply Officer, Ordnance Section, Headquarters Third US Army, throughout the European Campaign.
7. Letter from Ordnance Officer, First US Army, dated 19 June 1944, to the Ordnance Officer, Headquarters First US Army Group.
8. Schematic outline of proposed Ordnance Recovery Company
9. Proposed T/O & E.
10. Annex No. 3 to SOP First US Army, Ordnance SOP for Combat (Extract)

REQUIREMENT FOR ORDNANCE RECOVERY COMPANY

Prepared by:

Colonel N. M. Lynde Chief, Section in Charge
Lt. Col. M. L. Driscoll Ordnance Section
Major C. D. Cotten, Jr. Ordnance Section

Principal consultants:

Lt. Col. John K. Damon G-4 Section
Major M. W. Heskett Signal Section
Captain J. P. Tolbert Quartermaster Section

THE GENERAL BOARD
UNITED STATES FORCES, EUROPEAN THEATER
APO 408

REQUIREMENT FOR ORDNANCE RECOVERY COMPANY

CHAPTER 1

BACKGROUND OF THE REQUIREMENT

SECTION 1

HISTORY

1. Experience in Other Theaters. The campaigns in Africa and Sicily demonstrated a need for an Ordnance unit designed to perform battlefield recovery. This was particularly true during the period before the build-up of supply levels had been accomplished, when every piece of equipment damaged or knocked out of action constituted a loss unless it could be promptly recovered, repaired and reissued.¹

2. The Ordnance Evacuation Company. This unit is designed to transport tanks forward to the combat zone and to evacuate unserviceable tanks from the combat zone to repair shops.² The Ordnance Evacuation Company is not suitable for battlefield recovery since it lacks balanced recovery equipment.³ Due to the technical nature, size and weight of Ordnance materiel, it is impracticable to combine facilities with Quartermaster salvage collecting companies.⁴

SECTION 2

ACTION TAKEN BY FIRST U. S. ARMY

3. Organization of Ordnance Evacuation Companies (Collecting). Prior to the invasion of the continent, First U. S. Army reorganized four Ordnance evacuation companies (T/O & E 9-187) to form provisional Ordnance evacuation companies (collecting).¹

4. a. Equipment. The essential differences in equipment between the Ordnance evacuation company (T/O & E 9-187) and the unit as provisionally reorganized by First U. S. Army are illustrated in the following tabulation.¹

Item	Ordnance Evacuation Company T/O & E 9-187	Ordnance Provisional Evacuation Company (Collecting)
Truck, 2½ ton, 6x6	3	15
Truck, wrecking, 4 ton, 6x6	None	6
Truck, wrecking, 10 ton, M1	3	6
Vehicle, Tank Recovery, T2	None	2
Truck, 40 ton, tank transporter, M-25	18	6

b. Trucks, 2½ ton. Reduction in the number of tank transporters and increase in the number of trucks, 2½ ton, provided a more economical means of handling many small items.¹

c. Wreckers. Additional wreckers were necessary for removal of road blocks, loading trucks, and battlefield recovery.

d. Defense. All vehicles were equipped with machine guns, .50 caliber, for defense.

5. Personnel. A total of 58 enlisted men and one officer were rendered excess by the reorganization of each of the four Ordnance evacuation companies to provisional Ordnance evacuation companies (collecting). This excess personnel provided the operators for the Ordnance communications system used by First U. S. Army.

CHAPTER 2

TECHNIQUE OF PROVISIONAL ORDNANCE

EVACUATION COMPANIES (COLLECTING)

SECTION 1

EMPLOYMENT

6. Assignment. One Ordnance evacuation company (collecting) was attached to each forward Ordnance battalion supporting a corps. One additional unit was held in army reserve.¹

7. Mission. The type of mission assigned Ordnance evacuation companies (collecting) is illustrated by extracts from the Ordnance Annex to Operation "Neptune".⁵

a. 177 Ordnance Battalion: Forward area support to troops in V Corps Sector. 463 Ordnance Evacuation Company (Collecting) - Recovery and forward area evacuation.

b. 86 Ordnance Battalion: Army support battalion, backing 177 Ordnance Battalion. 486 Ordnance Evacuation Company (Collecting) - Evacuation from 177 Battalion. Augment delivery resources on forward movement of armored vehicles.⁵

8. Mis-use. Ordnance evacuation companies (collecting) were occasionally mis-used in such a manner that they could not execute their primary mission of battlefield recovery.

a. During the Northern France Campaign, an Ordnance evacuation company (collecting) was used for road patrol because it was needed at the time. Its trucks were used for road patrol and its prime movers were used for clearing wrecked vehicles. Patrols covered 300 miles of supply roads. The unit accomplished this mission satisfactorily, but was not available for battlefield recovery during this period.⁶

b. The heavy losses of materiel by First U. S. Army during the Ardennes Campaign created a heavy demand for tank transporters to bring in replacement tanks. The tank transporters of the evacuation companies (collecting) were withdrawn for this purpose, handicapping those units in their efforts to perform battlefield recovery.⁶

c. Both First and Third U.S. Armies had occasion to use the equipment of Ordnance Evacuation Companies, together with all available transportation in maintenance companies, for emergency hauling of ammunition. While this diverted the units from their primary mission, it is felt that the urgency of the situation justified such action. 8. 12

SECTION 2

OPERATIONS

9. Reconnaissance. Sergeants especially trained in reconnaissance operated in division areas to gain information regarding contemplated operations. They located disabled materiel and sent back coordinates together with an estimate of the equipment and personnel required for recovery. It was necessary to attach mechanics from maintenance companies to determine whether materiel was worth recovery. Reconnaissance personnel were trained to recover only when the materiel to be recovered was worth the risk of the equipment involved in the effort.⁷

10. Communications. Radio sets SCR 284 were used in a net including the platoons and the company.¹ Due to the short range of these sets, they were little used. Chief reliance was placed on messengers mounted in quarter-ton trucks.⁷

11. Performance. Ordnance evacuation companies (collecting) cleared the battlefield of materiel too heavy for the using arms to recover; evacuated materiel, including enemy ammunition, from the division collecting points to corps collecting points; removed road blocks in the corps sectors as required; and served as common carriers to assist Ordnance depots in displacing forward; and on occasion, provided emergency means for moving ammunition forward.^{7,8,13} Preceding an attack by armored units, the following procedure was followed: ⁷

- a. Two recovery squads and two wrecker squads moved to a position close to the assembly area.
- b. Heavy transportation squads were located two or three miles to the rear.
- c. All recovered materiel was removed to the corps collecting point.
- d. No repair work was attempted by the company.
- e. The company command post was located near the center of the corps sector and was well forward.
- f. Recovery operations were usually conducted at night to avoid enemy fire.

SECTION 3

EQUIPMENT

12. Tank Transporters. Both the tank transporter combination M-19 and M-25 are road bound. Lack of spare parts and unusual tire sizes caused an inordinately high dead-line. Neither the tank transporter combination M-19 nor the M-25 can handle the German Mark VI Royal Tiger Tank.⁸

13. Seni-Trailers. While Third US Army had no specially organized companies for battlefield recovery, a number of flat-bed and stake-sided trailers were issued to standard Ordnance evacuation companies.⁹

SECTION 4

PERSONNEL

14. Casualties. Principal causes of casualties to personnel were;^{7,8}

- a. Mines, tank and anti-personnel.
- b. Small arms fire.
- c. Mortar fire.
- d. Handling enemy ammunition.

15. Dispersion. An Ordnance evacuation company (collecting) must be dispersed to avoid attracting attention. When this principal is violated in the forward area, bombing attacks may be expected.⁶

SECTION 5

TRAINING

16. Subjects. Ordnance evacuation companies (collecting) required re-training for their new mission. Security was emphasized because working squads are employed close to the front. A high degree of leadership was required of non-commissioned officers since the company is decentralized for work. Reconnaissance personnel were taught map reading.⁶

17. Deficiencies. Inability of reconnaissance personnel to evaluate disabled materiel caused much that was worthless to be recovered. Mechanics were attached from maintenance companies to correct this.⁶

18. On the Job Training. Skill in driving all types of equipment, rigging, and a knowledge of mines and booby-traps and enemy ammunition were learned by actual experience on the job.⁸

CHAPTER 3

REQUIREMENT FOR AN ORDNANCE RECOVERY COMPANY

SECTION 1

EVALUATION

19. Magnitude of the Task. During the Ardennes Campaign, First U.S. Army alone lost 510 tanks, 3,336 trucks, 381 artillery pieces, and 27,098 small arms.¹⁰

20. Importance of the Task. In a letter to the Ordnance Officer, First U. S. Army Group, written 19 June 1944, the Ordnance Officer, First U. S. Army stated;¹¹

"I would introduce an Ordnance Collecting Company in each sector at H plus 14 hours. I would probably lose part of it, but what was left could do a job which was woefully lacking for a few days."

21. The Ordnance Recovery Company. Designation of the provisional Ordnance evacuation company (collecting) created the impression that this unit had some responsibility for operating collecting points. This was incorrect as the unit had no mechanics other than those needed for second echelon maintenance of its organic transportation. The term Ordnance Recovery Company is more descriptive of its mission.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

SECTION 1

CONCLUSIONS

22. A requirement does exist for an Ordnance recovery company.

23. Assignment. Ordnance recovery companies should be assigned to armies on the basis of one per corps and one additional for reserve.

24. Mission. Ordnance recovery companies should be assigned the following primary and secondary missions.

a. Primary Mission: Battlefield recovery of repairable Ordnance materiel too heavy for using arms to recover, evacuation of division collecting points and delivery of this materiel to corps collecting points.

b. Secondary Missions: Removal of road blocks in forward area beyond the capabilities of equipment in hands of combat troops, and lifting bulk and reserve stocks of forward Ordnance Class II Depots when displacing forward.

25. Organization. Ordnance recovery companies should consist of two recovery platoons and a headquarters section. Recovery platoons should contain balanced recovery equipment consisting of tank transporter combinations, cargo trucks, flat-bed trailers, wreckers, and tank retrievers.

26. Equipment. Development should be continued to insure that tank transporter combinations are available which are capable of handling our own and the enemy's heaviest tanks. A radio net capable of operating over a distance of 100 miles is desirable. Armament for ground and air defense is needed.

27. Training. Personnel should be trained in the following subjects:

- a. Driving all types of materiel.
- b. Diagnosis of mechanical failures and combat damage to all types of materiel.
- c. Map reading.
- d. Scouting and petrolling.
- e. Mines and booby-traps.
- f. Handling of ammunition both friendly and enemy.
- g. Use of weapons.
- h. Security measures.
- i. Rigging.
- j. Communications.

28. The Post-War Army. Ordnance recovery companies should be a part of the post-war army in order that the technique of handling heavy equipment may be developed, and their tactical instruction not be neglected.

SECTION 2

RECOMMENDATIONS

29. Recommend that pertinent field manuals, technical manuals and army regulations be amended by appropriate agencies of the War Department to include the Ordnance recovery company in the technique of battlefield recovery.

30. Recommend that a T/O & E for an Ordnance recovery company be drawn up by appropriate agencies of the War Department.

31. Recommend that the Ordnance recovery company be organized and equipped substantially as outlined in the proposed T/O & E submitted as Appendix No. 9.

32. Recommend that development of heavy recovery equipment be continued to insure availability of equipment capable of handling the heaviest American and foreign tanks.

33. Recommend that the Ordnance Department establish and maintain a course of instruction in the technique of battlefield recovery for the instruction of officers and enlisted men of Ordnance recovery companies and Ordnance staff officers.

34. Recommend that Ordnance recovery companies in the post-war army be organized at approximately 50% of their authorized strength and with a comparable reduction in equipment. Furthermore, recommend that recovery companies be assigned to posts, camps and stations where large armored units are established, and that Ordnance recovery companies be assigned to the major tactical headquarters in order to insure its proper tactical training.

REQUIREMENT FOR ORDNANCE RECOVERY COMPANY

BIBLIOGRAPHY

1. Report of Operations, First US Army, Annex 13.
2. Field Manual 101-10, 21 December 1944.
3. Remarks of Major Charles Askins, Battlefield Recovery Officer, Ordnance Section, Headquarters First US Army, from 11 December 1944 to 24 March 1945. Appendix 1.
4. Remarks of Lt. Col. R. G. Atkinson, Ordnance Supply Officer, Ordnance Section, Headquarters First US Army, throughout the European Campaign. Appendix 2.
5. Report of Operations, First US Army, Annex No. 2.
6. Remarks of Colonel W. B. Moats, Commanding Officer, 51st Ordnance Group, throughout the European Campaign. Appendix 3.
7. Remarks of Captain J. Davis, Commanding Officer, 484th Ordnance Evacuation Company (Collecting), throughout the European Campaign. Appendix 5.
8. Remarks of Colonel M. M. Lynde, Deputy Ordnance Officer, Headquarters First US Army, from 15 December 1943 to 5 February 1945. Appendix 4.
9. Remarks of Lt. Col. J. V. Kling, Ordnance Supply Officer, Ordnance Section, Headquarters Third US Army, throughout the European Campaign, Appendix 6.
10. First US Army Consolidated Loss Report to Chief Ordnance Officer, Communications Zone, dated 6 June 1944 to 7 May 1945.
11. Letter, Ordnance Officer, First US Army, 19 June 1944, to Ordnance Officer, First US Army Group. Appendix 7.
12. After-Action Report, Third US Army, Volume II, Part 18, Chapter 10, Section VI.
13. Annex No. 3 to SOP First US Army, Ordnance SOP for Combat (Extract) Appendix 10.

Remarks of: Major Charles Askins, Battlefield Recovery Officer, Ordnance Section, Headquarters First US Army, from 11 December 1944 to 24 March 1945.

The requirement for this type company as recommended herewith cannot be too greatly emphasized. The old evacuation company, equipped primarily with tank transporters, is in no sense suitable for the task. The present evacuation company may be safely said to be a hybrid compromise which cannot successfully or efficiently perform either the forward area recovery task or the rear area transportation task of a transporter unit. The collection and evacuation of both friendly and enemy equipment throughout the army area is a task of the greatest magnitude and of extreme importance. It is essential that routes of communication be kept open, road hazards removed promptly, American equipment expeditiously collected and evacuated for early repair and return to service, and serviceable enemy equipment withdrawn from the reach of possible recapture or re-use by the enemy. The reconnaissance sections provided by the recommended T/O & E have been found absolutely essential. The balanced recovery equipment of all types as recommended is in accordance with the balance of tasks imposed upon these units as determined by actual experience. This type unit should be provided on the basis of one (1) per corps, plus one (1) unit for each army to perform the tasks within the army area and to augment the resources provided within the corps sectors in particularly difficult situations. When not required in the forward areas, the reserve unit assists in the expeditious evacuation of equipment from forward collection points to rear shops, a task that has never yet been fully performed due to insufficient resources.

Remarks of: Lt. Col. R. G. Atkinson, Ordnance Supply Officer, Ordnance Section, Headquarters First US Army, throughout the European Campaign.

The system of separate collecting points for Ordnance materiel has been found to be highly efficient. Due to the specialized nature of the problem and the requirements for technical knowledge in the handling and classifying of this equipment, and to the fact that the Ordnance problem in connection with mechanical equipment of all weights and sizes has little or nothing in common with the general salvage program, it has been found wholly impractical to combine facilities or to utilize Quartermaster salvage collecting companies. So long as the Ordnance collection and evacuation chain is kept intact and under Ordnance control, it can be used not only for the collection of supposedly unserviceable and unrepairable salvage, but as an efficient metering device on the whole system of maintenance and evacuation.

Remarks of: Colonel W. B. Moats, Ordnance Department, Commanding Officer, 51st Ordnance Group, during the European Campaign.

1. There is a requirement for an Ordnance Collecting Company.
2. Such a company should consist of:
 - a. 9 - Tank Transporters.
 - b. 10 - 2-1/2 ton trucks (5 with 2nd echelon set No. 7).
 - c. 8 - Flat bed semi-trailers.
 - d. 1 - Platoon of mechanics capable of working on all types of materiel. This platoon must include supply personnel for identification and nomenclature. It should have third echelon set No. 1, plus individual mechanic's set.
3. The mission should be limited to evacuation and salvage. An evacuation (collecting) company in France was used for road patrol because it was needed at the time. 2-1/2 ton trucks and 1/2 ton trucks were used for road patrol and prime movers of M-25 for handling wrecks. Patrolled 300 miles of Main Supply Route (Y and Z Routes). Accomplished assigned mission satisfactorily, but were of no value then as Collecting Company.
4. Hazards: Properly handled, the work of an Ordnance Collecting Company is no more hazardous than other types of work. Units operated in mine fields and were exposed to small arms fire. They worked at night to evacuate tanks.
5. Casualties: There were no casualties under 51st Ordnance Group. However, 974th Ordnance Company took 28 casualties from bombing attack due to close concentration of materiel within an hour of arrival in forward area under the 52nd Ordnance Group. Unit cannot be concealed and its employment must include dispersal.
6. Mistakes: Road patrol, above, was mis-use of this type company. Unit or elements of collecting companies were used to haul materiel to and from Paris, which was a distance of 700 miles. After the Battle of the Bulge, units could not evacuate to collecting points since transporters were often dispatched on trips by army requiring two to three weeks, and were not available for primary mission.
7. Relations: The 484th Ordnance Company was unpopular with other troops because personnel were a rough crew. It was the most efficient unit in army, but always got into trouble due to lack of leadership on the part of the unit commander and due to amount of work done without supervision, this resulting in lack of discipline. The 974th, on the other hand, was well liked. Troops on the ground objected to presence of transporters and to their entry into an area except at night. This was true during a static situation.
8. Orders to company were frequently by radio, although they never had enough to handle dispersed company operating by platoons. Squad messages went to Company Command Post, and company frequently had to send messengers as much as 100 miles in order to get jobs done. There should be a radio with each platoon, and one in the company. Telephones are not useful except to company command post.
9. Reconnaissance personnel were used for reconnaissance. Difficulty arose from lack of mechanics since reconnaissance personnel were unable to properly evaluate work. Mechanics must be included in reconnaissance parties. Location and reporting were excellent, but results obtained from materiel evacuated were not good because much that was evacuated should have been left on the battlefield. The unit never had sufficient maps for reconnaissance parties to properly plot location of materiel.

Appendix 3

10. Re-training: The 51st Ordnance Group stressed security of unit and squads. Many non-commissioned officers were reduced because of lack of leadership. Units must be security conscious due to employment close to front lines. The company lacked efficiency because personnel could not evaluate materiel to be evacuated. It was necessary to attach mechanics from heavy maintenance (tank) and other companies to accompany reconnaissance personnel. Reconnaissance personnel had to be taught how to go out and search for and report materiel. The unit generally works without supervision.

11. I would like to see a cross country vehicle that could operate cross country. The tank recovery vehicle was used on many occasions when it became impossible to approach jobs with either M-19 or M-25. I believe that M-19 with front wheel drive would give better results than were obtained from the M-25. No parts for the M-19 caused about 40% efficiency of operation. If possible, vehicle should use components similar to those used on other vehicles present in the area.

12. At one time during the Bulge, eleven ammunition trucks were wrecked on one hill. All were cleared in two hours. This was near Depot O-610, west of the Mouse.

Remarks of: Colonel N. M. Lynde, Deputy Ordnance Officer, Headquarters
First US Army, 15 December 1943 to 5 February 1945.

1. Provisional Ordnance evacuation companies (collecting) were a valuable means of augmenting existing transportation facilities throughout the campaign. They were used to assist the forward Ordnance depot companies in displacing their bulk and reserve Ordnance Class II stocks forward and, on occasion, for moving Ordnance Class V.

2. Lack of spare parts and tires caused an inordinate dead-line.

3. Neither the tank transporter combination M-19 or M-25 can handle the German Mark VI Royal Tiger Tank. Both combinations have limited cross-country ability.

4. Personnel of Ordnance evacuation companies (collecting) learned to drive all types of equipment on the job. They also learned rigging and obtained a knowledge of mines and booby-traps by actual experience.

5. In handling enemy ammunition frequent accidents occurred among officers and enlisted men of Ordnance evacuation companies of the First and Fifteenth U. S. Armies while operating in the collecting role.

Remarks of: Captain J. Davis, 310th Ordnance Battalion, formerly Commanding Officer, 484th Ordnance Evacuation Company (Collecting), First US Army, throughout the European Campaign.

1. Due to the speedy action of armored and tank destroyer units and necessity for assisting the using units in battlefield recovery, it was found necessary to reorganize Ordnance evacuation companies into Ordnance evacuation companies (collecting) by reducing the strength of five officers and 122 enlisted men organized into one headquarters platoon and two recovery platoons. The mission of this unit was that of recovering armored and tank destroyer vehicles from the battlefield, and evacuation to a designated collection point where evacuation companies would evacuate to the rear. This mission was found to be best accomplished by the operation of these companies under the following conditions which should be drilled into each member of the reconnaissance section and recovery platoons. "Recover only when the equipment to be evacuated is worth the risk of the equipment that will have to be used to recover it from the field".

2. Operations: The reconnaissance squad of the company contacted all using arms within the corps area, placing particular emphasis on division collecting points and armored units. Advance information of an attack was received either through battalion or the reconnaissance personnel. In the event of an attack by armored elements, the T-2 tank retrievers and two M-1 wreckers were brought up immediately behind the jump-off point. The M-19 tank transporters were placed two to three miles back. No repair work was attempted by the company. All vehicles were evacuated to corps collecting points. The company headquarters located itself as closely as possible to the center of the corps area and as far forward as the tactical situation would permit. Before making a request for the equipment needed to make a recovery, the reconnaissance sergeant would first determine the tactical situation by contacting the flank units. If the position was secure, and the equipment to be recovered warranted the risk of the personnel and retrievers, then he sent a message by radio or courier to the platoon for the men and materiel. The company had been initially equipped with sufficient radios to equip each platoon and the headquarters. Some use was made of them in Normandy but as the situation became fluid and distances increased, the radios' small range caused them to be abolished and couriers were used exclusively. The unit was called upon numerous times to remove road-blocks. Many times it developed that these were just trees that had been felled across the road and which could have been pulled aside with a line. The majority of these requests were due to drivers ignorance of their vehicles' capabilities and a tendency on the part of some people to call upon the biggest equipment possible to do any job.

3. Equipment:

a. The truck-trailer, 45 ton tank transporter M-19 is a good vehicle for hauling on hard standing in its present design; recommend that this vehicle be provided with front wheel drive and converted to a semi-trailer with a fifth wheel; a stake body for use on trailer when hauling parts should be provided. The 8.25-15 tires on the M-9 trailer should be changed to a more popular size tire since these tires were extremely critical throughout the operation. When the above changes have been incorporated into this vehicle, it is believed that it will be superior to the M-26 and the M-26A1.

b. Truck-tractor, M-26 and M-26A1 w/semi-trailer M-15, has superior pulling power over the present M-19. Wheel studs are not suitable since shearing takes place on long runs. Recommend flexible fuel lines be installed on this vehicle.

c. Vehicle, tank recovery, M-32, series: This vehicle is satisfactory as is.

d. Recommend that thirty-seven .50 caliber machine guns, with vehicular mounts, be issued and that at least three ground mounts be provided each platoon for defense during recovery operations.

e. Recommend the addition of the following personnel and equipment:

(1) Personnel:

1 - Welder	T/5	Headquarters Platoon
1 - Mechanic, Auto	T/4	Headquarters Platoon

The welder is required for the performance of all welding operations of the company. The automotive mechanic is required to maintain all organic transportation.

(2) Equipment:

- 1 - Welder, Generator, Hobart GR-300-S complete 17-k-1715.
- 1 - Trailer, 1 ton, 2 wheel, 230 gal. water tank.
- *6 - Truck, Tractor, 4 - 5 ton.
- *6 - Semi-Trailers, combination stake & platform.
- 6 - Mounts, tripod, cal. .50 Machine Gun, M3.
- 4 - Detectors, Mine.

* -- The issue of these vehicles will replace a like number of trucks, 2½ ton, 6x6.

4. Training:

a. It is recommended that all personnel be given complete and thorough training in Mines and Booby Traps. During the training period, all members should be given training in driving all types of automotive equipment and at least 25% of all personnel be graduates of an evacuation course which should be set up at the Ordnance School to cover general subjects as outlined below:

(1) Evacuation Course:

Ground and train defense.
Defense against mines and booby traps.

Reconnaissance.

Map reading and sketching.
Driving all types of vehicles.
Rigging.

5. a. Types of Missions.

- (1) Recovery and collecting of damaged armored and tank destroyer equipment.
- (2) Removal and/or destruction of road blocks.
- (3) Transporting forward critical supplies.

b. Hazards involved: Principle hazard involved was mines. Hazards involved in all operations are determined by the reconnaissance sergeant and are a controlling factor in his decision to call forward his personnel and equipment for the recovery operation.

c. Casualties in their order of fatal results are as follows:

- (1) Mines.
- (2) Small Arms Fire.
- (3) Mortar Fire.

6. It is recommended that the collecting company be set up as a separate organization, and that one Ordnance collecting company be assigned to each Corps to operate directly under instructions of the Corps Ordnance Officer, and that one of these companies be assigned army to support army troops.

7. Major commands supported during operations:

VIII Corps	3rd Armored Division
XIX Corps	707th Tank Battalion
29th Infantry Division	737th Tank Battalion
30th Infantry Division	747th Tank Battalion
2nd Armored Division	and various tank destroyer battalions.

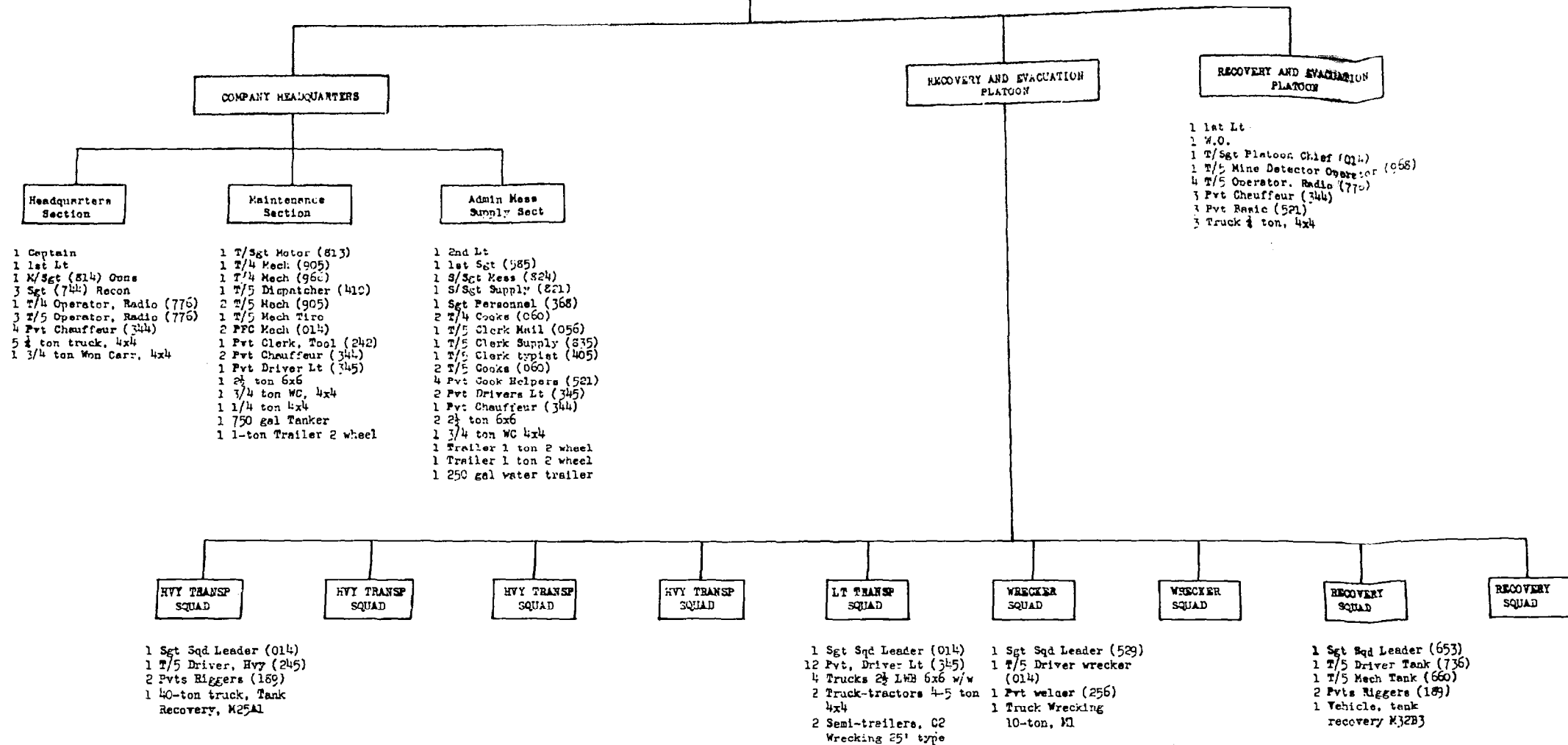
Remarks of: Lt. Col. J.V. Kling, Ordnance Supply Officer, Ordnance Section,
Headquarters Third US Army, throughout the European Campaign.

1. Third US Army requested, but were unable to obtain, provisional Ordnance collecting companies. They met the requirement for companies of this type by issuing 10-ton, stake sided, semi-trailers and Air Corps type flat-bed trailers to some of their evacuation companies.
2. The principle use of evacuation companies in Third US Army was to pick up tanks from Communications Zone, and the using units were required to pick up tanks from the army supply points.
3. Because of the rapidity of their movement, Third US Army had little opportunity for clearing their battle fields. In the Ardennes, their evacuation companies were used for battlefield recovery until the thaw made the roads impassable.
4. It is felt that there is a requirement for a collecting company equipped with one platoon of tank transporters, some 10-ton wreckers and flat-bed trailers. They are needed whenever the situation becomes static. The use of evacuation companies to bring tanks forward from Communications Zone would have been obviated had Communications Zone fulfilled their obligation to deliver supplies to the armies.

The following extract from a letter written by the Ordnance Officer, First US Army, 19 June 1944, to the Ordnance Officer, Headquarters First US Army Group is cited:

"I would introduce an Ordnance Collecting Company in each sector at H plus 14 hours. I would probably lose part of it, but what was left could do a job which was woefully lacking for a few days."

ORDNANCE RECOVERY COMPANY
(COLLECTING)



SCHEMATIC OUTLINE OF ORDNANCE RECOVERY COMPANY
(PROPOSED)

HEADQUARTERS THE GENERAL BOARD
OFFICE OF THE ORDNANCE OFFICER
APO 408
5 NOV 1945

THE ORDNANCE RECOVERY COMPANY (COLLECTING)

This study is based on a T/O & E submitted by Major Charles Askins, formerly Battlefield Recovery Officer, Ordnance Section, Headquarters First United States Army. Certain modifications have been made to incorporate thoughts and experiences of other Armies and the T/O & E as presented here is the opinion of the General Board, European Theater of Operations.

RECOMMENDED TABLE OF ORGANIZATION

1	2	3	4	5	6	7	8	9
	Headquarters Section	2 Recovery and Evacuation Platoons (each)						Total Company
		Platoon Headquarters	4 Hvy Trans. Sgds. (ea)	1 Lt. Trans. Sgd. (ea)	2 Wrecker Sgds. (ea)	2 Recovery Sgds. (ea)	Total Platoon	
2. Captain	1							1
3. First Lieutenant	al	1					1	3
4. Second Lieutenant	bl							1
5. Total Commissioned, . . .	3	1					1	5
6. Warrant Officer, including		1					1	2
7. Recovery Officer (4805)		(1)					(1)	(2)
8. First Sergeant (585) . . .	1							1
9. Master Sergeant (814) . .	1							1
10. Technical Sergeant, including	1	1					1	3
11. Platoon Chief (014) . . .		(1)					(1)	(2)
12. Motor (813)	(1)							(1)
13. Staff Sergeant, including	2							2
14. Mess (824)	(1)							(1)
15. Supply (821)	(1)							(1)
16. Sergeant, including	4		1	1	1	1	9	22
17. Personnel (368)	(1)							(1)
18. Reconnaissance (744) . . .	(3)							(3)
19. Squad Leader (014)			(1)	(1)			(5)	(10)
20. Squad Leader (529)					(1)		(2)	(4)
21. Squad Leader (653)						(1)	(2)	(4)
22. Technician, grade 4, including	5							5
23. Cook (060)	(2)							(2)
24. Mechanic (905)	(1)							(1)
25. Mechanic (966)	(1)							(1)
26. Operator, Radio (776) . . .	(1)							(1)
27. Technician, grade 5, including	12	5	1		1	2	15	42
28. Clerk, Mail (056)	(1)							(1)
29. Clerk, Supply (835)	(1)							(1)
30. Clerk, Typist (405)	(1)							(1)
31. Cook, (060)	(2)							(2)
32. Dispatcher (410)	(1)							(1)
33. Driver, Heavy (245)			(1)				(4)	(8)
34. Driver, Tank (736)						(1)	(2)	(4)
35. Driver, Wrecker (014) . . .					(1)		(2)	(4)
36. Mechanic, Auto (905)	(2)					(1)	(2)	(2)
37. Mechanic, Tank (660)							(2)	(4)
38. Mechanic, Tire (MOS unknown)	(1)							(1)
39. Mine Detector Operator (968)		(1)					(1)	(2)
40. Operator, Radio (776) . . .	(3)	(4)					(4)	(11)
41. Privates, first class, including	17	6	2	12	1	2	32	81
42. Privates								
43. Chauffeur (344)	(7)	(3)					(3)	(13)
44. Clerk, Tool (242)	(1)							(1)
45. Cooks Helper (521)	(4)							(4)

RECOMMENDED TABLE OF ORGANIZATION (Cont'd)

1	2	3	4	5	6	7	8	9
	Headquarters Section	2 Recovery and Evacuation Platoons (each)						Total Company
		Platoon Headquarters	4 Hvy. Trans. Sqds. (ea)	1 Lt. Trans. Sqd. (ea)	2 Wrecker Sqds. (ea)	2 Recovery Sqds. (ea)	Total Platoon	
4. Driver, Light (345)	(3)			(12)			(12)	(27)
5. Mechanic, Auto (014)	(2)							(2)
6. Riggers (189)			(2)			(2)	(12)	(24)
7. Welder (256)					(1)		(2)	(4)
8. Basic (521)		(3)					(3)	(6)
9. Total Enlisted	43	13	4	13	3	5	58	159
10. Aggregate	46	14	4	13	3	5	59	164

- (a) Executive and Motor Officer
- (b) Mess, Supply, and Personnel
- (c) Principle Drivers Designated Vehicles

RECOMMENDED DISTRIBUTION OF EQUIPMENT

1	2	3	4	5	6	7	8	9
1.	Headquarters Section	2 Recovery and evacuation Platoons (each)						Total Company
		Platoon Headquarters	4 Hvy. Trans. Sqds. (ea)	1 Lt. Trans. Sqd. (ea)	2 Wrecker Sqds. (ea)	2 Recovery Sqds. (ea)	Total Platoon	
<u>ORDNANCE</u>								
2. Binoculars, M3	4	1				1	3	10
3. Carbine, Cal. .30, M1.	41	11	2	13	2	3	42	125
4. Gun, Machine, Cal. .50 HB, M2		2	1	2	1	1	12	24
5. Gun, Machine, Cal. .30	3							3
6. Gun, submachine, Cal. .45, M3	5	3	1			1	9	23
7. Launcher, Rocket, A.T. 2.36"	1					1	2	5
8. Mount, Truck, M36.				2	1		4	8
9. Mount, Truck, M31.		2					2	4
10. Mount, Truck, M48.	3							3
11. Rifle, Cal. .30, M1.			1		1	1	8	16
12. Watch, Wrist, 7 jewel.	2	1	.				1	4
13. Trailer, Cargo, 1 Ton, 2 Wheel.	3							3
14. Trailer, Water Tank, 250 Gal., 1 Ton	1							1
15. Truck, 1/4 ton, 4x4.	6	3					3	12
16. Truck, Weapons Carrier, 3/4 ton, w/winch	3							3
17. Truck, Cargo, L.W.B., 2 1/2 ton, 6x6, w/winch	3			4			4	11
18. Truck, Tank, Gasoline, 750 Gal., 2 1/2 ton, 6x6	1							1
19. Truck, Heavy Wrecking, 10 ton, 6x6, M1					1		2	4
20. Truck, Tank Transporter 40 ton, M25A1			1				4	8
21. Vehicle, Tank Recovery, M32B3.						1	2	4
22. Trk. tractor, 4-5 ton, 4x4.				2				4
23. Semi-trlr, wrkg, 25', C2				2				4
<u>ENGINEER</u>								
24. Compass, lensatic.	6	2					2	10
25. Case, map, plastic, B.A.C.T.	6	2					2	10
<u>SIGNAL</u>								
26. Detector, Mine, SCR 625.	1	1					1	3
27. Telephone, field	1							1
28. Reels, unit, R6-31	1							1
29. Wire, W-110-B on Reel DR-4	3							3
30. Radio (100 mile radius of operation).	2	2						6

EXTRACT

HEADQUARTERS
FIRST UNITED STATES ARMY
APO 230

18 September 1944

Annex No. 3
to

Standing Operating Procedure First United States Army
Ordnance Operating Procedure for Combat

7. Disposition of Hazardous and Explosive Material.

- (a) When found in small quantities, it will be evacuated by the finding unit to the nearest ASP. Ordnance evacuation companies (collecting) will assist in the collection and evacuation of this material.